NATIONAL INSTITUTES OF HEALTH
CLINICAL CENTER
NURSING AND PATIENT CARE SERVICES

Standard of Practice: <u>Care of the Patient undergoing Cardiac Monitoring</u>

ESSENTIAL INFORMATION

- Nursing staff who care for patients requiring cardiac monitoring have demonstrated knowledge and competency with this technology.
- A medical order for cardiac monitoring is required for:
  - The initiation, discontinuation and reinitiation of monitoring in the telemetry areas
  - The discontinuation of monitoring in the critical care areas
  - Exceptions to this include procedure areas that utilize cardiac monitoring as part of a specific procedure or where monitoring is initiated and maintained as a key aspect of care in the critical care areas.
- The primary monitoring lead chosen for cardiac monitoring will depend on the patient's underlying clinical condition and purpose for monitoring. Typically, Lead II will be used as the main monitoring lead. V1 (5-lead system) or MCL1 (3-lead system) may be used as a secondary lead for cardiac monitoring.

I. ASSESSMENT

A. Prior to placement of the electrodes, the chest is assessed for any evidence of skin breakdown. Excess hair is clipped prior to electrode placement.
B. Electrode placement is assessed at least every shift in order to maintain a reliable ECG tracing.
C. When obtaining a 6-second ECG strip, note the monitoring lead. Determine baseline cardiac rate and rhythm and the following:
   1. PR interval
   2. QRS width
   3. QT interval/QTc may be measured as clinically indicated. If a QTc is required, notify patient's physician or licensed independent prescriber and consider obtaining a 12 lead EKG.

4. Assess that alarms are set appropriately, as based on patient's clinical condition, at the beginning of every shift and every four hours.
5. Assess patient tolerance of monitoring and electrode placement at least every shift.

II. INTERVENTIONS

A. The AACN Procedure Manual for Critical Care (4th ed.) is followed for the application of leads and general aspects of cardiac monitoring.
B. All ECG electrodes should be changed every 48 hours, when compromised or with nurse discretion.
C. For telemetry units, an "alarm review" is performed every 4 hours to note cardiac alarm trends.
D. When dysrhythmias occur, the nurse notifies the Licensed Independent Prescriber (LIP) in order to determine further management, if indicated.
E. Patient and family teaching is provided.

III. DOCUMENTATION

A. Document an ECG strip upon the initiation or prior to discontinuation of cardiac monitoring, with a change in patient's status, a change in caregiver, and at least every 12 hours. The following information is documented for each ECG strip obtained and placed in the designated area in the patient's medical record:
   1. Patient name, date and time
   2. Monitoring lead
   3. ECG analysis of PR interval, QRS width, QT interval/QTc (if indicated), cardiac rate and rhythm
   4. Full signature of nurse reviewing the strip

   Note: ECG strips are mounted in the patient's medical record using double sided tape or glue stick.
B. Document performance of alarm review, noting cardiac rhythm trend and any intervention (s) required.
C. Patient Teaching
   1. Purpose of cardiac monitoring
   2. Explain equipment, alarms, and alarms due to interference
   3. Inform patient that his/her cardiac rhythm will be monitored by nursing staff skilled in cardiac monitoring.
   4. Inform patient when to notify the nurse, such as symptoms of chest pain, shortness of breath, palpitations or any skin irritation near areas where electrodes are placed.
   5. Criteria for the discontinuation of cardiac monitoring.

IV. **REFERENCES**

A. Jacobson, C. (2000). Optimum Bedside Cardiac Monitoring. Progress in Cardiovascular Nursing, 134-137.

B. McKinley, M.G. Electrophysiologic Monitoring: Hardwire and Telemetry. In AACN Procedure Manual for Critical Care 4th ed. Philadelphia: W.B. Saunders, 2001, pp. 329-337.

Approved:

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